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Data 400 – Idea 1

Research Question: *Do NBA role players receive contract premiums for social media relevance?*

Motivation: Last semester, I researched the behavioral biases impacting the market for live streaming American professional sports. I enjoyed that research and want to do a little more analysis of markets related to sports. As an NBA fan, I notice that players who are fan favorites seem to get higher salaries than I would expect. I want to test if beloved role players get higher salaries relative to their on-court metrics. I chose NBA player contracts since the structure of contracts is not affected largely by positional and age differences in contrast to other leagues like the NFL and MLB. I chose role player contracts to disregard the max and supermax format.

Proposed Data Sources: Yearly NBA player performance data is available using the *nba_api* package in python or using BasketballReference. NBA salary data is available via BasketballReference, ESPN, or HoopsHype. To get social media presence, I would like to look at a few metrics, such as Instagram followers (using API or scraping Instagram) and Google Search trends. All data collected would be public and legal to obtain.

Methodology: I would look at any NBA player who received a new contract in the 2024 offseason (depending on sample size, I may expand the year range. E.g. new contracts between 2022 and 2025), excluding players with extensions or max/super-max deals (max/super-max deals have predetermined values). Classifying 'role players' is interesting and may take some time to nail down exactly what qualifies a player as this (some sort of age, salary, and minutes played restrictions). I would then use two predictive models (with and without online relevancy statistics) and compare the models' fit (R2) and coefficients.

Stakeholders: Players and teams are the main stakeholders. For players, they may need to invest more time in their social media presence. For teams, they may be able to identify undervalued or overvalued players based on their media perception.